

Attachment 7
Fresno River Model Run Assumptions
April 1, 2010

I. Water Priorities

- A. Madera Canal purchased water diverted to MID for beneficial use.
- B. Natural Fresno River flows diverted by Upstream Riparians.
- C. Decree water directly diverted to MID:
 - 1. Fresno River (up to 200 cfs max) (S004978).
 - 2. Big Creek (up to Issue Paper Table 1 amounts) (S012547).
 - 3. No. Fork Willow Creek (if any, up to Issue Paper Table 1 amounts) (S014187).
- D. Decree water stored at Hensley Lake (for later release to MID).
- E. Natural Fresno River flows diverted by Downstream Riparians (S006296 for Menefee plus statements to be filed by July 1, 2010 for Harman and Triangle T.)
- F. Pre-1914 water directly diverted by Costa View Farms under Statement 5005 (18.33 cfs based on Sallabery Ranch's historical diversions).
- G. Fresno River flows directly diverted by Downstream Riparians under a License:
 - 1. Fresno River flows directly diverted by Triangle T under License 9073 (A011003A: 17.5 cfs from 2/1-7/15).
 - 2. Fresno River flows directly diverted by Red Top Jerseys (Wickstrom, Harris Ranch) under License 5753 (A011048: 6.6 cfs from 2/1-12/31).
 - 3. Fresno River flows directly diverted by Costa View under License 4689 (A013541: 45 cfs from 11/1-7/1).
 - 4. Fresno River flows directly diverted by Menefee under License 7561 (A016136: 3.2 cfs from 2/1-6/15).
- H. Natural Fresno River flows diverted by MID under License 9229 (A017311: 4,700 AF from 11/1-4/30).
- I. Storage in Hidden Dam during May and Nov if offset by Madera Canal water, when available.
- J. **Natural Fresno River flows stored by the Bureau under Permit 16584 (A018733).**
- K. Natural Fresno River flows directly diverted by other Post-1914 water right holders.
- L. Madera Canal flood water diverted to MID for groundwater recharge.
- M. Madera Canal flood water diverted by any user above.

Fresno River Model Run Assumptions (Cont.)

II. System Operations

- A. Reservoir inflow bypass/release water not required for river losses if Downstream Riparian crop demand is not occurring.
- B. Road 9 Structure:
 - 1. Operational Capacity: 60 cfs (estimated). Use for current level-of-development (LOD) model runs for 2002-2009.
 - 2. Design Capacity: 100 cfs. May use for future LOD model runs such as when the capacity is restored.¹
- C. Use the Bureau's and District's Decree Interpretation.
- D. 31 cfs of losses below Road 9.
- E. MID demand based on duty for a representative MID crop mix at a current level-of-development. LOD year: 2007.
- F. MID system project irrigation efficiency of 70%.
- G. Hidden Dam low-flow valve gate operated to provide downstream flows.²
- H. Upstream Riparian Sharing Formula: The Bureau model does not explicitly share water among riparians in Reaches 1 through 3 correlatively.
- I. Downstream Riparian Sharing Formula: To be determined using riparian acreages.³

III. Hydrology

- A. Use historical period 2002-2009.

¹ On March 31, 2010 Triangle T representative installed two 50 cfs diesel engines to demonstrate that capacity of up to 100 cfs can be attained.

² Alternatives to "G" include (1) operating the high-flow valve gate to provide pulse flow releases equivalent to the required daily low flows or (2) providing constant flow rates from the high flow valve gate.

³ To date, this formula has not been developed by the Downstream Riparians as specified in Action Item 21.